Record high temperatures across the state, El Nino's demise, snowmelt, and spring equinox

With the rain winding down and so much warm weather, there may not be many more newsletters this season. High temperature records have been numerous the last few days, but today is a bit cooler thanks to high clouds and low-level atmospheric cooling.

Sunday Eureka 72

Monday Bakersfield 85, San Rafael 81, San Francisco International 79, King City 93, Reno 80 (which is the earliest 80 of the year), South Lake Tahoe 65, Susanville 75

Tuesday Bakersfield 88, Fresno 84, Downtown Sacramento 83, Stockton 84, Modesto 84, Sacramento Executive Airport 81

Rain and snow have been turned off this past week. The numbers reflect the lack of additional precipitation, as well as the melting that is taking place. The Northern Sierra precipitation 8-station index today showed 3% of average for March, with the season at 30.0", or 79% of normal season-to-date. Last year at this time, we stood at 59.0", or 156% of normal. The Feather River Basin has received no rain the last 10 days, with none projected until at least the 19th or 20th of March.
The snow level is currently 11,000'.

Snow pillow water equivalence measurements are down 1" across the board for the Northern, Central, and Southern Sierra. The statewide average is 57% of normal. The Sacramento River region is down 1.4" from March 1, the San Joaquin down 0.9", the Tulare Lake region down 0.8". Of the rivers in those basins, the Mokelumne and the Tule have been affected the least. But with all this sunshine, no rain/ no snow, the downward trend will continue.

Runoff estimates will be dropping with Thursday's water supply report update. The forecasted percent of average April-July runoff (Full Natural Flow) will fall 5-7% on the major Sierra rivers compared to the March 1 values.

Next week is National Flood Safety Awareness Week. Elissa has been asked to assist with a press briefing which will be held at the National Weather Service Sacramento Office at the Joint Operations Center (date/time TBD). This is a good time to review emergency plans, to remind ourselves of the risk of flooding, especially in California, and to continue the public discussion on flood protection and prevention.

El Nino conditions along the equator are quickly fading, and a La Nina pattern will be developing soon. The fast end to a moderate El Nino has meant dry conditions for southern California, as well as most of the southwestern United States. While warm ocean waters of the El Nino usually bring above normal rainfall for those areas, this year was atypical. Los Angeles has seen only 20 % of normal since July 1, 2006, with Eureka at 100%, and San Francisco at 79%. Even if it were to rain normally through June 30th, LA could only attain 35% of normal, and San Francisco 82%. If it fails to rain the rest of the season, LA will end at 16%, Eureka at 78%, and San Francisco at 65%. (Thanks to Jan Null).

Neutral sea-surface conditions are now taking over across the tropical Pacific. A La Nina pattern is expected to develop over the next 3 months, which means ocean temperatures will become cooler than average near the equator, with reduced rainfall over the central tropical Pacific. La Nina favors normal to above normal temperatures through the southwestern US. The main jet will shift north into Canada (as it has already done), which will lead to below normal precipitation for the Sierra, central, and southern California this spring, summer, and possibly next winter. Coastal California may stay cooler than normal this spring and early summer thanks to cool offshore waters. Longer term concerns with a strong La Nina are dry to drought-type weather conditions next winter for the western U.S., as well as an intensified Atlantic hurricane season.

The Creighton-Douglas long-range precipitation outlook for March through May shows below normal precipitation for virtually the entire state, with the exception of the small northwestern corner of the state, with near normal precip. Climate Prediction Center (CPC) precipitation estimates for the same March through May time frame look fairly similar, with equal chances of normal precip for almost the whole state, but the southeastern corner of the state having below normal precip chances (meaning drier). The CPC chart for March through May indicates warmer than normal temperature chances being strong virtually statewide, except along the coast, where it's more likely to be cooler than normal.

The spring equinox occurs next Tuesday, March 20th, at 5:07pm locally.
It already looks and feels like spring, with the clocks in Daylight Saving Time, and this strong, dry ridge of high pressure holding through at least this weekend. Models hint at a swath of rain next Monday or Tuesday, but they could be teasing.

(EL)

Weather_and_Climate_News

Modify your subscription settings at
http://listhost2.water.ca.gov/mailman/listinfo/weather_and_climate_news